

## Year 2 – Computing - Curriculum Overview

Computing Systems and Networks – IT Around Us		
Lesson	Learning Objectives	Success Criteria
<b>1</b>	To recognise the uses and features of information technology	<ul style="list-style-type: none"> <li>- I can describe some uses of computers</li> <li>- I can identify examples of computers</li> <li>- I can identify that a computer is a part of IT</li> </ul>
<b>2</b>	To identify the uses of information technology in the school	<ul style="list-style-type: none"> <li>- I can identify examples of IT</li> <li>- I can identify that some IT can be used in more than one way</li> <li>- I can sort school IT by what it's used for</li> </ul>
<b>3</b>	To identify information technology beyond school	<ul style="list-style-type: none"> <li>- I can find examples of information technology</li> <li>- I can sort IT by where it is found</li> <li>- I can talk about uses of information technology</li> </ul>
<b>4</b>	To explain how information technology helps us	<ul style="list-style-type: none"> <li>- I can demonstrate how IT devices work together</li> <li>- I can recognise common types of technology</li> <li>- I can say why we use IT</li> </ul>
<b>5</b>	To explain how to use information technology safely	<ul style="list-style-type: none"> <li>- I can list different uses of information technology</li> <li>- I can say how rules can help keep me safe</li> <li>- I can talk about different rules for using IT</li> </ul>
<b>6</b>	To recognise that choices are made when using information technology	<ul style="list-style-type: none"> <li>- I can explain the need to use IT in different ways</li> <li>- I can identify the choices that I make when using IT</li> <li>- I can use IT for different types of activities</li> </ul>

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Creating Media – Digital Photography		
Lesson	Learning Objectives	Success Criteria
1	To use a digital device to take a photograph	<ul style="list-style-type: none"><li>- I can explain what I did to capture a digital photo</li><li>- I can recognise what devices can be used to take photographs</li><li>- I can talk about how to take a photograph</li></ul>
2	To make choices when taking a photograph	<ul style="list-style-type: none"><li>- I can explain the process of taking a good photograph</li><li>- I can explain why a photo looks better in portrait or landscape format</li><li>- I can take photos in both landscape and portrait format</li></ul>
3	To describe what makes a good photograph	<ul style="list-style-type: none"><li>- I can discuss how to take a good photograph</li><li>- I can identify what is wrong with a photograph</li><li>- I can improve a photograph by retaking it</li></ul>
4	To decide how photographs can be improved	<ul style="list-style-type: none"><li>- I can experiment with different light sources</li><li>- I can explain why a picture may be unclear</li><li>- I can explore the effect that light has on a photo</li></ul>
5	To use tools to change an image	<ul style="list-style-type: none"><li>- I can explain my choices</li><li>- I can recognise that images can be changed</li><li>- I can use a tool to achieve a desired effect</li></ul>
6	To recognise that photos can be changed	<ul style="list-style-type: none"><li>- I can apply a range of photography skills to capture a photo</li><li>- I can identify which photos are real and which have been changed</li><li>- I can recognise which photos have been changed</li></ul>

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Creating Media – Making Music		
Lesson	Learning Objectives	Success Criteria
1	To say how music can make us feel	<ul style="list-style-type: none"> <li>- I can describe how music makes me feel, e.g. happy or sad</li> <li>- I can identify simple differences in pieces of music</li> <li>- I can listen with concentration to a range of music (links to the Music curriculum)</li> </ul>
2	To identify that there are patterns in music	<ul style="list-style-type: none"> <li>- I can create a rhythm pattern</li> <li>- I can explain that music is created and played by humans</li> <li>- I can play an instrument following a rhythm pattern</li> </ul>
3	To show how music is made from a series of notes	<ul style="list-style-type: none"> <li>- I can identify that music is a sequence of notes</li> <li>- I can refine my musical pattern on a computer</li> <li>- I can use a computer to create a musical pattern using three notes</li> </ul>
4	To show how music is made from a series of notes	<ul style="list-style-type: none"> <li>- I can identify that music is a sequence of notes</li> <li>- I can refine my musical pattern on a computer</li> <li>- I can use a computer to create a musical pattern using three notes</li> </ul>
5	To create music for a purpose	<ul style="list-style-type: none"> <li>- I can describe an animal using sounds</li> <li>- I can explain my choices</li> <li>- I can save my work</li> </ul>
6	To review and refine our computer work	<ul style="list-style-type: none"> <li>- I can explain how I made my work better</li> <li>- I can listen to music and describe how it makes me feel</li> <li>- I can reopen my work</li> </ul>

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Data and Information – Pictograms		
Lesson	Learning Objectives	Success Criteria
1	To recognise that we can count and compare objects using tally charts	<ul style="list-style-type: none"> <li>- I can compare totals in a tally chart</li> <li>- I can record data in a tally chart</li> <li>- I can represent a tally count as a total</li> </ul>
2	To recognise that objects can be represented as pictures	<ul style="list-style-type: none"> <li>- I can enter data onto a computer</li> <li>- I can use a computer to view data in a different format</li> <li>- I can use pictograms to answer simple questions about objects</li> </ul>
3	To create a pictogram	<ul style="list-style-type: none"> <li>- I can explain what the pictogram shows</li> <li>- I can organise data in a tally chart</li> <li>- I can use a tally chart to create a pictogram</li> </ul>
4	To select objects by attribute and make comparisons	<ul style="list-style-type: none"> <li>- I can answer 'more than'/'less than' and 'most/least' questions about an attribute</li> <li>- I can create a pictogram to arrange objects by an attribute</li> <li>- I can tally objects using a common attribute</li> </ul>
5	To recognise that people can be described by attributes	<ul style="list-style-type: none"> <li>- I can choose a suitable attribute to compare people</li> <li>- I can collect the data I need</li> <li>- I can create a pictogram and draw conclusions from it</li> </ul>
6	To explain that we can present information using a computer	<ul style="list-style-type: none"> <li>- I can give simple examples of why information should not be shared</li> <li>- I can share what I have found out using a computer</li> <li>- I can use a computer program to present information in different ways</li> </ul>

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Programming A – Robot Algorithms		
Lesson	Learning Objectives	Success Criteria
1	To describe a series of instructions as a sequence	<ul style="list-style-type: none"><li>- I can choose a series of words that can be enacted as a sequence</li><li>- I can follow instructions given by someone else</li><li>- I can give clear and unambiguous instructions</li></ul>
2	To explain what happens when we change the order of instructions	<ul style="list-style-type: none"><li>- I can create different algorithms for a range of sequences (using the same commands)</li><li>- I can show the difference in outcomes between two sequences that consist of the same commands</li><li>- I can use an algorithm to program a sequence on a floor robot</li></ul>
3	To use logical reasoning to predict the outcome of a program (series of commands)	<ul style="list-style-type: none"><li>- I can compare my prediction to the program outcome</li><li>- I can follow a sequence</li><li>- I can predict the outcome of a sequence</li></ul>
4	To explain that programming projects can have code and artwork	<ul style="list-style-type: none"><li>- I can explain the choices I made for my mat design</li><li>- I can identify different routes around my mat</li><li>- I can test my mat to make sure that it is usable</li></ul>
5	To design an algorithm	<ul style="list-style-type: none"><li>- I can create an algorithm to meet my goal</li><li>- I can explain what my algorithm should achieve</li><li>- I can use my algorithm to create a program</li></ul>
6	To create and debug a program that I have written	<ul style="list-style-type: none"><li>- I can plan algorithms for different parts of a task</li><li>- I can put together the different parts of my program</li><li>- I can test and debug each part of the program</li></ul>

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Programming A – Introduction to Quizzes (ScratchJR)		
Lesson	Learning Objectives	Success Criteria
1	To explain that a sequence of commands has a start	<ul style="list-style-type: none"><li>- I can identify that a program needs to be started</li><li>- I can identify the start of a sequence</li><li>- I can show how to run my program</li></ul>
2	To explain that a sequence of commands has an outcome	<ul style="list-style-type: none"><li>- I can change the outcome of a sequence of commands</li><li>- I can match two sequences with the same outcome</li><li>- I can predict the outcome of a sequence of commands</li></ul>
3	To create a program using a given design	<ul style="list-style-type: none"><li>- I can build the sequences of blocks I need</li><li>- I can decide which blocks to use to meet the design</li><li>- I can work out the actions of a sprite in an algorithm</li></ul>
4	To change a given design	<ul style="list-style-type: none"><li>- I can choose backgrounds for the design</li><li>- I can choose characters for the design</li><li>- I can create a program based on the new design</li></ul>
5	To create a program using my own design	<ul style="list-style-type: none"><li>- I can build sequences of blocks to match my design</li><li>- I can choose the images for my own design</li><li>- I can create an algorithm</li></ul>
6	To decide how my project can be improved	<ul style="list-style-type: none"><li>- I can compare my project to my design</li><li>- I can debug my program</li><li>- I can improve my project by adding features</li></ul>